**DETAILED ACTION**

1. This action is responsive to communication filed on 6/19/2009. Claims 1-7,9-22 are subject to examination. Claim 8 is cancelled and claim 22 is newly added claim.

2. This amendment has been fully considered and entered.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

***Claims 1-3,5-7,9-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pitsoulakis et al. U.S. Patent Publication # 2003/0035471 A1 (hereinafter Pits) further in view of Brown et la. U.S. Patent # 6,823,480 (hereinafter Brown)***

As per claim 1, Pits teaches a method of indicating connectivity comprising:

-determining whether a communication link is established (Fig. 1 element 104) between a modem (Fig. 1 element 102) and a network aggregation point (i.e. DSL provider) (Fig. 5 element 508) (Paragraph 34, 39);

**NOTE:** The reference teaches each of the computers connected to the Ethernet hub on the access device (between the modem). The access device is connected to a single DSL line through which DSL services are provided by the DSL service provider (a network aggregation point). In Paragraph 34 and Table 1, Pits also teaches DSL LED

indicates the DSL connection and the synchronization with asymmetric DSL (ADSL) transreceiver unit (ATU). When DSL is connected and is synchronized with ATU-C, the DSL LED shows green light. When DSL is connected and is not synchronized with ATU-C, the DSL LED shows yellow light. When there is no DSL connection, the DSL LED shows no light (determining communication link is established).

-visually indicating an existence of the communication link at a first location of the modem (Fig. 4 element 402) (Paragraphs 34, 37) when the communication link is established (Paragraph 34) (Table 1); and

**NOTE:** The reference teaches Ethernet hub has an Ethernet link LED (Fig. 4 element 402) (visually indicating existence of the link) which indicates the link status. When there is an Ethernet connection at an Ethernet hub (modem), the associated Ethernet link LED shows green light otherwise, when there is not connection, the Ethernet link shows no light. Pitsoulakis specifically states, the DSL LED (Fig. 2 element 206) indicates the DSL connection and the synchronization with asymmetric DSL (ADSL) transreceiver unit (ATU). This means there is a communication link between the modem of the user which the access device and the network aggregation point which is (DSL connection with the DSL transreceiver unit). In Paragraph 34 and Table 1, Pits also teaches DSL LED indicates the DSL connection and the synchronization with asymmetric DSL (ADSL) transreceiver unit (ATU). When DSL is connected and is synchronized with ATU-C, the DSL LED shows green light. When DSL is connected and is not synchronized with ATU-C, the DSL LED shows yellow light.

When there is no DSL connection, the DSL LED shows no light (determining communication link is established).

Pits teaches determining whether a user of the modem is authorized to have access to an information service (Paragraph 83, 84) and determining whether the modem has access to an information service and visually indicating an accessibility of the information service at a second location of the modem when the user of the modem is authorized to have access to the information service (Paragraph 34, 37)(Table 1,2)(Fig. 4 element 404).

**NOTE:** The reference teaches Ethernet activity LED (Fig. 4 element 404) which indicates activity status. The reference also teaches when there is an Ethernet connection; the associated Ethernet activity LED flashes yellow light in a frequency relative to the intensity of the activities over the Ethernet connection. This shows the accessibility of the information service at the Ethernet hub (modem).

Although Pits teaches the above limitation, Brown specifically teaches determining whether a user of the modem is authorized to have access to an information service (column 4 lines 19-31, lines 44-55) (column 5 lines 14-53)(column 6 lines 9-30) and visually indicating an accessibility of the information service at a second location of the modem (Fig. 3 element 315,325) when the user of the modem is authorized to have access to the information service (column 4 lines 19-31, lines 44-55) (Fig. 3 element 315,325)(column 5 lines 14-53)(column 6 lines 9-30)

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention was made to implement Brown's teaching in Pits's teaching to

come up with having modem accessing information service and visually indicating accessibility of the information service on the modem. The motivation for doing so would be to notify the user that system is online and operational, when the user sees the LED indicators on the modem.

As per claim 2, Pits and Brown teaches the method of claim 1, further comprising: utilizing a first light emitting diode (Fig. 4 element 402) to indicate whether the communication link is established (Paragraphs 34, 37); and utilizing a second light emitting diode (Fig. 4 element 404) to indicate accessibility based on whether the user of the modem is authorized to have access to the information service (Paragraphs 34, 37) (Table 1, 2).

**NOTE:** The reference teaches Ethernet hub has an Ethernet link LED (Fig. 4 element 402) (visually indicating existence of the link) which indicates the link established. The reference teaches Ethernet activity LED (Fig. 4 element 404) which indicates activity status (access of the information source).

Brown specifically teaches utilizing a first light emitting diode (Fig. 3 element 325) to indicate whether the communication link is established (column 4 lines 19-31, lines 44-55); and utilizing a second light emitting diode (Fig. 3 element 325) to indicate accessibility based on whether the user of the modem is authorized to have (column 4 lines 19-31, lines 44-55)(Fig. 3 element 315,325)

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention was made to implement Brown's teaching in Pits's teaching to come up with having LED indicating communication link established and another LED

indicating modem has access to the information service. The motivation for doing so would be to notify the user that system is online and operational when the user sees the LED indicators on the modem.

As per claim 3, Pits and Brown teaches the method of claim 1, but Pits further teaches further comprising executing a Point to Point Protocol over Ethernet client in connection with establishing the communication link (Paragraph 43).

As per claim 5, Pits and Brown teaches the method of claim 1, but Pits further teaches further comprising communicating information from the information service to the modem via the network aggregation point (Paragraph 37).

As per claim 6, Pits and Brown teaches the method of claim 1, but Pits further teaches wherein the modem comprises a user interface having visual display capabilities (Fig. 2 elements 204,206,208,210,212)(Fig. 4 elements 402,404).

As per claim 7, Pits teaches the method of claim 6, wherein the user interface comprises the first location (Fig. 4 element 402) and the second location (Fig. 4 element 404)(Paragraph 37).

As per claim 9, Pits and Brown teaches the method of claim 1, but Pits further teaches wherein the modem comprises a digital subscriber line (DSL) modem (Paragraph 14, 75).

As per claim 10, Pits and Brown teaches the method of claim 1, but Pits further teaches wherein the modem comprises a cable modem (Paragraph 75)

As per claim 11, Pits and Brown teaches the method of claim 1, but Brown further teaches wherein the network aggregation point comprises a cable modem

termination system (Fig. 3 element 300,305,310)(column 3 lines 5-10)(column 4 lines 13-20)).

As per claim 12, Pits and Brown teaches the method of claim 1, but Pits further teaches wherein the network aggregation point comprises a digital subscriber line access multiplexer (Paragraphs 39,40).

As per claim 13, Pits and Brown teaches the method of claim 1, but Brown further teaches further comprising disabling the visual indication of the existence of the communication link in response to recognizing a loss of the established communication link (column 5 lines 1-4, lines 41-59).

As per claim 14, Pits teaches a system, comprising:

-a display element coupled to a housing component (Fig. 2 element 204,206,208), wherein the display element includes a visual display portion (Fig. 2 element 204,206,208,210,212);

**NOTE:** The reference teaches visually displaying LED which a housing component (Fig. 204,206,208,210)

-wherein the housing component at least partially defines an enclosure (Fig. 2 element 204,206,210,208,212) (Fig. 3, 4);

**NOTE:** The displaying LED are partially defining enclosure since this is an open area of viewing the LED's.

-a broadband modem unit (Fig. 2 element 200) secured within the enclosure (Fig. 2 element 204,206,208,210,212);

-a link detection mechanism communicatively coupled to the broadband modem unit and operable to output a link signal in response to a determination that a communication link exists between the broadband modem unit and a network aggregation point (Fig. 5 element 508) (i.e. DSL provider) (Paragraphs 34, 37); and

**NOTE:** The reference teaches Ethernet hub has an Ethernet link LED (Fig. 4 element 402) (output link signal) which indicates the link status. When there is an Ethernet connection at an Ethernet hub (modem), the associated Ethernet link LED shows green light otherwise, when there is not connection, the Ethernet link shows no light. Pitsoulakis specifically states, the DSL LED (Fig. 2 element 206) indicates the DSL connection and the synchronization with asymmetric DSL (ADSL) transreceiver unit (ATU). This means there is a communication link between the modem of the user which the access device and the network aggregation point which is (DSL connection with the DSL transreceiver unit).

-a data detection mechanism operable to output an access signal in response to a recognition that a remote information service is accessible from the broadband modem unit (Paragraphs 34, 37);

**NOTE:** The reference teaches when there is an Ethernet connection (remote information service) at an Ethernet hub (modem); the associated Ethernet link LED shows green light otherwise, when there is not connection, the Ethernet link shows no light.

-a first indicator (Fig. 4 element 402) operable to be displayed within the display element in response to the link signal (Paragraphs 34, 37); and

**NOTE:** The reference teaches Ethernet hub has an Ethernet link LED (Fig. 4 element 402) (a first indicator) which indicates the link status. When there is an Ethernet connection at an Ethernet hub (modem), the associated Ethernet link LED shows green light otherwise, when there is not connection, the Ethernet link shows no light.

-a second indicator (Fig. 4 element 404) operable to be displayed within the display element in response to the access signal (Paragraphs 34, 37) (Table 1, 2).

**NOTE:** The reference teaches Ethernet activity LED (Fig. 4 element 404) which indicates activity status. The reference also teaches when there is an Ethernet connection; the associated Ethernet activity LED flashes yellow light in a frequency relative to the intensity of the activities over the Ethernet connection. This shows the access signal i.e. since there is activities with the network (modem).

Although Pits teaches the above limitation, Brown specifically teaches a data detection mechanism operable to output an access signal in response to a recognition that a remote information service is accessible from the broadband modem unit, when a user of the system is authorized to access the remote information service (column 4 lines 19-31, lines 44-55); first indicator (Fig. 3 element 300,305,325) operable to be displayed within the display element in response to the link signal (column 4 lines 19-31, 44-55) a second indicator (Fig. 3 element 315,325)operable to be displayed within the display element in response to the access signal (column 4 lines 19-31, lines 44-55)(Fig. 3 element 315,325)

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention was made to implement Brown's teaching in Pits's teaching to come up with having modem accessing information service and visually indicating accessibility of the information service on the modem by the first indicator and second indicator. The motivation for doing so would be to notify the user that system is online and operational, when the user sees the LED indicators on the modem.

As per claim 15, Pits and Brown teaches the system of claim 14, but Pits further teaches wherein the display element comprises a plurality of light emitting diodes (Fig. 2 element 204,206,208,210,212) within the visual display portion and further wherein the first indicator comprises a first lighted one of the plurality of light emitting diodes and the second indicator comprises a second lighted one of the plurality of light emitting diodes (Paragraph 34, 37).

As per claim 16, Pits and Brown teaches the system of claim 14, but Pits further teaches wherein the broadband modem unit comprises a cable modem (Paragraph 75).

As per claim 17, Pits and Brown teaches the system of claim 14, but Pits further teaches wherein the broadband modem unit comprises a digital subscriber line (DSL) modem (Paragraphs 14, 75).

As per claim 18, Pits and Brown teaches the system of claim 14, but Pits further teaches further comprising a point to point protocol over Ethernet (PPPoE) client executing on a processor secured within the enclosure (Paragraph 43).

As per claim 19, Pits teaches a method comprising:

-providing a subscriber with a broadband modem comprising a first indicator (Fig. 4 element 402) operable to display a connectivity status indicating whether a connection exists between the broadband modem and a network aggregation node (Paragraphs 34,37); and

**NOTE:** The reference teaches Ethernet hub has an Ethernet link LED (Fig. 4 element 402) (visually indicating existence of the link) which indicates the link status. When there is an Ethernet connection at an Ethernet hub (modem), the associated Ethernet link LED shows green light otherwise, when there is not connection, the Ethernet link shows no light. Pitsoulakis specifically states, the DSL LED (Fig. 2 element 206) indicates the DSL connection and the synchronization with asymmetric DSL (ADSL) transreceiver unit (ATU). This means there is a communication link between the modem of the user which the access device and the network aggregation point which is (DSL connection with the DSL transreceiver unit).

-a second indicator (Fig. 4 element 404) operable to display a data status indicating whether the broadband modem has access to a remote information service node (Paragraphs 34, 37)(Table 1,2).

**NOTE:** The reference teaches Ethernet activity LED (Fig. 4 element 404) which indicates activity status. The reference also teaches when there is an Ethernet connection; the associated Ethernet activity LED flashes yellow light in a frequency relative to the intensity of the activities over the Ethernet connection. This shows the modem has access to the information service at the Ethernet hub (modem).

-providing a broadband data service to the subscriber (Paragraph 42).

**NOTE:** The reference teaches DSL service provider providing DSL services to the user.

Although Pits teaches the above limitations, Brown further teaches a second indicator (Fig. 3 element 325,315) operable to display a data status indicating whether the broadband modem has access to a remote information service node based on whether a user of the broadband modem is authorized to access the remote information service (column 4 lines 19-31, 44-55) and providing a broadband data service to the subscriber (column 4 lines 50-55).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention was made to implement Brown's teaching in Pits's teaching to come up with having visually indicating whether the modem has access to the information service on the modem by the indicator. The motivation for doing so would be to notify the user that system is online and operational, when the user sees the LED indicators on the modem

As per claim 20, Pits and Brown teaches the method of claim 19, but Brown further teaches further comprising: receiving a trouble shooting request from the subscriber, the trouble shooting request relating to the broadband service (column 4 lines 56-67) (column 5 lines 1-5, lines 17-28); and prompting the user to observe the first and second indicator (column 4 lines 66-67) (column 5 lines 1-5, lines 17-28).

As per claim 21, Brown teaches the method of claim 20, further comprising: receiving a communication indicating that the first indicator displays a positive connectivity status and the second indicator displays a negative data status (column 5

lines 40-64); and determining an appropriate suggestion responsive to the trouble shooting request (column 5 lines 17-28)

As per claim 22, Pits and Brown teaches the method of claim 1, but Brown further teaches further comprising disabling the visual indication of the existence of the accessibility of the information service in response to recognizing a loss of the established communication link (column 5 lines 1-4, lines 41-59).

***Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pits in view of Brown further in view of Hartmaier et al. U.S. Patent # 6,553,022 (hereinafter Hartmaier)***

As per claim 4, Pits and Brown teaches the method of claim 1, but is silent in teaching communicating a user credential to an authentication server to request access to the information service. Hartmaier teaches communicating a user credential to an authentication server to request access to the information service (column 5 lines 21-36). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention as was made to implement Hartmaier's teaching in Pits and Brown's teaching to come up with communicating user credentials to a authentication server in connection with authorizing access. The motivation for doing so would be check whether the subscriber is an authorized subscriber to the ISP, therefore granting access if the credentials match, or denying access if credentials are invalid (column 5 lines 21-36).

***Response to Arguments***

Applicant's arguments filed 6/19/2009 have been fully considered but they are not persuasive.

A). Applicant states Brown does not disclose or suggest "indicating accessibility based on whether the user of the modem is authorized to access an information service".

B). Applicant also states Brown does not disclose or suggest visually indicating an accessibility of an information service at a second location of a modem when the user of the modem is authorized to have access to the information service".

C). Applicant states Pitsoulakis and Brown fails to disclose or suggest utilizing a second light emitting diode to indicate accessibility based on whether a user of a modem is authorized to have access to an information service.

D). Applicant states Pitsoulakis and Brown fails to teach a data detection mechanism operable to output an access signal in response to a recognition that a remote information service is accessible from the broadband modem unit when a user of a system is authorized to access the remote information service.

E). Applicant states Pitsoulakis and Brown fails to teach indicating whether the broadband modem has access to a remote information service node based on whether a user of the modem is authorized to access the remote information service.

As per remark A, Examiner respectfully disagrees with the applicant because in column 4 lines 19-31, 44-55 and column 5 lines 14-53, Brown specifically teaches determining whether a user of the modem is authorized to have access to an information service (column 4 lines 19-31, lines 44-55) (column 5 lines 14-53)(column 6

lines 9-30). In column 5 lines 17-22, and lines 29-48, Brown clearly states that operation status are recorded and made available for user access through indicators (LED). Brown further states the operations comprising Tuning, Ranging, Configuring and Registering corresponds to the respective LEDs. Examiner would like to point out that as known in the art the connection to the modem would not be possible if the authorization of the user has not occurred i.e. by providing valid IP address. In column 4 lines 36-43, Brown teaches upon successful completion of connecting, status LED are set to a registering state(indicating accessibility by the LEDs). Also in Fig. 3, Brown teaches LEDs 1,2,3 flashing during the connecting mode which DHCP process functional i.e. assigning IP address and LEDs 1,2,3 being steady which means the user/cable modem is online (i.e. accessing the information source which in this case is internet) and that authorization which is connecting, configuring, registering is complete. Furthermore, even the specification of the current application states that authorization is done and assigning IP address (Paragraph 14 of the current application). Therefore Brown teaches the claimed limitations.

As per remark B, Examiner respectfully disagrees with the applicant because in Column 4 lines 19-31, lines 40-55 and column 6 lines 9-30, Brown also teaches visually indicating an accessibility of the information service at a second location of the modem (Fig. 3 element 315,325) when the user of the modem is authorized to have access to the information service (column 4 lines 19-31, lines 40-55) (Fig. 3 element 315,325)(column 5 lines 14-53)(column 6 lines 9-30). In column 4 lines 40-55, Brown specifically states that system is on-line (Fig. 3 element 325) when the connecting and

the registering step have been completed and that system is online and operational and status LED are set to indicate an on-line state. Since the modem is online it means the user has been authorized, because the IP address as has been assigned based on the status LEDs (authorizing the user of the modem to access the information service). It is old and well known in the art, that modem can only been online to access the information service i.e. internet, if the user is authorized since it is being assigned an IP address to the user computer . Examiner would like to point out that the claim language does not specify as to how the authorization is done i.e. by assigning IP address or by username and password etc. Therefore Brown teaches the claimed limitations.

As per remark C, Examiner respectfully disagrees with the applicant because in column 4 lines 19-31, 44-55 and column 5 lines 14-53, Brown specifically teaches utilizing a second light emitting diode (Fig. 3 element 325) to indicate accessibility based on whether a user of a modem is authorized to have access to an information service (column 4 lines 19-31, lines 44-55) (column 5 lines 14-53)(column 6 lines 9-30). In column 5 lines 17-22, and lines 29-48, Brown clearly states that operation status are recorded and made available for user access through indicators (LED). Brown further states the operations comprising Tuning, Ranging, Configuring and Registering corresponds to the respective LEDs. Examiner would like to point out that as known in the art the connection to the modem would not be possible if the authorization of the user has not occurred i.e. by providing valid IP address. In column 4 lines 36-43, Brown teaches upon successful completion of connecting, status LED are set to a registering state (indicating accessibility by the LEDs). Also in Fig. 3, Brown teaches LEDs 1,2,3

flashing during the connecting mode which DHCP process functional i.e. assigning IP address and LEDs 1,2,3 (i.e. second of the LEDs being steady indicating accessibility) being steady which means the user/cable modem is online (i.e. accessing the information source which in this case is internet) and that authorization which is connecting, configuring, registering is complete. Furthermore, even the specification of the current application states that authorization is done and assigning IP address (Paragraph 14 of the current application). Therefore Brown teaches the claimed limitations.

As per remark D, Examiner respectfully disagrees with the applicant because in column 4 lines 19-31, 44-55 and column 5 lines 14-53, Brown specifically teaches a data detection mechanism operable to output an access signal (i.e. Fig. 3 element 325 "LEDs 1,2,3 being steady") in response to a recognition that a remote information service is accessible from a broadband modem unit when the user of the system is authorized to access the remote information service (i.e. becoming online/connecting to Internet) (column 4 lines 19-31, lines 44-55) (column 5 lines 14-53)(column 6 lines 9-30). In column 5 lines 17-22, and lines 29-48, Brown clearly states that operation status are recorded and made available for user access through indicators (LED). Brown further states the operations comprising Tuning, Ranging, Configuring and Registering corresponds to the respective LEDs (i.e. output access signal). Examiner would like to point out that as known in the art the connection to the modem/being on Internet would not be possible if the authorization of the user has not occurred i.e. by providing valid IP address. In column 4 lines 36-43, Brown teaches upon successful completion of

connecting, status LED are set to a registering state (output signal in response that information service is accessible). Also in Fig. 3, Brown teaches LEDs 1,2,3 flashing during the connecting mode which DHCP process functional i.e. assigning IP address and LEDs 1,2,3 being steady which means the user/cable modem is online (i.e. accessing the information source which in this case is internet) and that authorization which is connecting, configuring, registering is complete. Furthermore, even the specification of the current application states that authorization is done and assigning IP address (Paragraph 14 of the current application). Therefore Brown teaches the claimed limitations.

As per remark E, Examiner respectfully disagrees with the applicant because in column 4 lines 19-31, 44-55 and column 5 lines 14-53, Brown specifically teaches indicating the broadband modem (i.e. cable modem) has access to a remote service node (i.e. online/internet) (Fig. 3 element 325) whether a user of the modem is authorized to have access to an information service (column 4 lines 19-31, lines 44-55) (column 5 lines 14-53)(column 6 lines 9-30). In column 5 lines 17-22, and lines 29-48, Brown clearly states that operation status are recorded and made available for user access through indicators (LED). Brown further states the operations comprising Tuning, Ranging, Configuring and Registering corresponds to the respective LEDs. Examiner would like to point out that as known in the art the connection to the modem/being on Internet would not be possible if the authorization of the user has not occurred i.e. by providing valid IP address. In column 4 lines 36-43, Brown teaches upon successful completion of connecting, status LED are set to a registering

state(indicating accessibility by the LEDs). Also in Fig. 3, Brown teaches LEDs 1,2,3 flashing during the connecting mode which DHCP process functional i.e. assigning IP address and LEDs 1,2,3 being steady which means the user/cable modem is online (i.e. accessing the remote information service node which in this case is internet and being online) and that authorization which is connecting, configuring, registering is complete. Furthermore, even the specification of the current application states that authorization is done and assigning IP address (Paragraph 14 of the current application). Therefore Brown teaches the claimed limitations.

***Conclusion***

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

A). "Method and Apparatus for Telephone Line Testing" by Starr et al. U.S. Patent # 7,003,078.

B). "Method and Apparatus for decreasing cable installation time and cable installation faults" by Cloonan et al. U.S. Patent # 7,047,553 (hereinafter Cloonan)

4. A shortened statutory period for response to this action is set to expire **3 (three) months and 0 (zero) days** from the mail date of this letter. Failure to respond within the period for response will result in **ABANDONMENT** of the applicant (see 35 U.S.C 133, M.P.E.P 710.02, 710.02(b)).

5.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dhairya A. Patel whose telephone number is 571-272-

5809. The examiner can normally be reached on Monday-Friday 8:00AM-5: 30PM, first Fridays OFF.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on 571-272-3964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DAP
/John Follansbee/

Supervisory Patent Examiner, Art Unit 2451